

CLAIM SET AS AMENDED

1. (Currently Amended) A fuel injection control system for an internal combustion engine, the engine for transmitting a driving force to an output shaft through a transmission, comprising:

means for detecting engine speed NE;

~~means for determining a fuel injection quantity as a function of said engine speed~~
NE;

~~means for discriminating a gear position of said transmission;~~

~~means for correcting said fuel injection quantity on the basis of the discrimination~~
~~result of said gear position;~~

means for detecting a throttle opening θ_{TH} ; and

a TH map in which said fuel injection quantity has been registered with the engine speed NE and the throttle opening θ_{TH} as parameters, the TH map being used to determine a basic fuel injection quantity as a function of the engine speed NE and the throttle opening θ_{TH} ;

means for discriminating a gear position of said transmission;

means for determining a fuel injection correction factor on the basis of the gear position and the engine speed NE; and

means for correcting the basic fuel injection quantity determined by the TH map on the basis of the gear correction factor ~~wherein said fuel injection quantity is determined on the basis of said TH map.~~

2-4 (Canceled)

5. (Currently Amended) The fuel injection control system for an internal combustion engine according to claim ~~[[2]]~~ 1, wherein the lower the gear position becomes, the more said correction means reduces the fuel injection quantity.

6-10 (Canceled)

11. (Original) The fuel injection control system for an internal combustion engine according to claim 1, wherein said means for discriminating the gear position discriminates the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

12-15. (Canceled)

16. (Currently Amended) A fuel injection method for an internal combustion engine, the engine for transmitting a driving force to an output shaft through a transmission, said method comprising the steps of:

detecting engine speed NE;

~~determining a fuel injection quantity as a function of said engine speed NE;~~

~~discriminating a gear position of said transmission;~~

~~correcting said fuel injection quantity on the basis of the discrimination result of said gear position;~~

detecting a throttle opening θ_{TH} ;

providing a TH map in which said fuel injection quantity has been registered with the engine speed NE and the throttle opening θ_{TH} as parameters; and

using the TH map to determine a basic fuel injection quantity as a function of the engine speed NE and the throttle opening θ_{TH} ;

discriminating a gear position of said transmission;

determining ~~said a~~ fuel injection correction factor on the basis of the gear position and the engine speed NE; and ~~quantity on the basis of said TH map~~

correcting the basic fuel injection quantity determined by the TH map on the basis of the gear correction factor.

17-18. (Canceled)

19. (Previously Presented) The method according to claim 16, wherein the lower the gear position becomes, the more the fuel injection quantity is reduced.

20. (Canceled)

21. (Original) The method according to claim 16, wherein said step of discriminating the gear position further comprises the step of discriminating the gear position on the basis of said engine speed NE and a vehicle speed Vpls.

22-25. (Canceled)

26. (New) The fuel injection control system for an internal combustion engine according to claim 1, further comprising means for detecting manifold air pressure PB, wherein the manifold pressure PB is a factor used to determine the basic fuel injection quantity along with the engine speed NE and the throttle opening θ_{TH} used by the TH map.

27. (New) The method according to claim 16, further comprising the steps of:
detecting manifold air pressure PB; and
using the manifold pressure PB as a factor to determine the basic fuel injection quantity along with the engine speed NE and the throttle opening θ_{TH} used by the TH map.

28. (New) The method according to claim 1, wherein if a rate of change of the throttle opening $\Delta\theta_{TH}$ exceeds a basic rate of change of the throttle opening $\Delta\theta_{THref}$, the TH map is selected.

29. (New) The method according to claim 16, wherein if a rate of change of the throttle opening $\Delta\theta_{TH}$ exceeds a basic rate of change of the throttle opening $\Delta\theta_{THref}$, the TH map is selected.